The HANFORD REACH

July 24, 2000

A publication of the U.S. Department of Energy for all Hanford Site employees

ERC team saves costs with new technology

The Environmental Restoration Contractor team is using a new technology to reduce the amount of soil requiring removal from F Area by nearly 200,000 tons. The technology will save more than $7 million in avoided waste-disposal costs.

The technology, called the Small-Diameter Geophysical Logging System, or SDGLS, uses a probe inside a small-diameter tube to measure and distinguish between naturally occurring and man-made gamma radiation in the soil. As compared with standard borehole drilling methods, this technology provides a less expensive and faster way to determine the extent of gamma-emitting contamination at a site.

Field personnel "push" Geoprobe rods into the soil before performing gamma ray logging.

With the support of the Environmental Protection Agency and the Department of Energy Richland Operations Office Return-on-Investment program, Bechtel Hanford, Inc. used the SDGLS at a coal ash pit near F Reactor. Results from the new testing procedure showed the ash pile contained a large amount of naturally occurring radioactive materials that did not require disposal at the Environmental Restoration Disposal Facility. As a result, the amount of soil to be remediated was reduced by about 200,000 tons with a projected cost avoidance of $7.35 million.

"The technology is another tool to improve our cleanup efforts at Hanford," said John April, Remedial Action Waste Disposal task lead. "With faster and cheaper sampling techniques, we can more effectively identify contaminated soil that must be removed."

With SDGLS, a hydraulic driver pushes a small-diameter tube as deep as 33 feet into the soil. A probe is then lowered into the tube to measure the gamma radiation in the surrounding soil. Up to five sample points can be completed in a single day. As the probe is lowered into the tube, the scientists log the data, which are then analyzed within 24 hours. The sample points are then closed and decommissioned.

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ERC team saves costs with new technology, cont.

Without the new technology, several large boreholes would have to be drilled. “The cost and time involved with regular borehole drilling limits how precisely we can map the contaminated soil,” April said. “And, in addition to being expensive, borehole drilling also generates a considerable amount of secondary waste.”

The logging system was developed from already existing equipment and logging technology by a team consisting of Tom Mitchell and Kevin Bergstrom, employees of CH2M HILL Hanford, Inc., a preselected subcontractor to BHI; Russ Randall of Three Rivers Scientific; and Randall Price of Northwest Geophysics.

Geoprobes are commonly used for chemical soil analyses. However, the addition of a sensitive SDGLS probe was a new adaptation of the equipment. DOE’s Return-on-Investment program funded the development and testing of the equipment. BHI and DOE calibrated the equipment by testing it at sites where contamination data had already been obtained.

The ash pit remediation site is now undergoing final testing to confirm it meets regulatory cleanup standards, a process that also is benefiting from the new technology. Dennis Faulk, F Area project manager for the EPA, said the new probe “has the potential to greatly reduce analytical costs associated with the site close-out verification.”

Based on the success of the ash pit characterization, the SDGLS technology will likely be used at other radioactive waste sites at Hanford. ✦

The HANFORD REACH

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www.Hanford.gov/reach/index.html

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The *Hanford Reach* is published weekly for all employees of the U.S. Department of Energy’s Hanford Site.

Deadline is 10 a.m. Thursday, 10 days prior to Monday publication. All articles are subject to editing. Contact the editors by phone, fax, site mail or e-mail.

Printed on recycled and recyclable paper.

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First Hanford waste reaches New Mexico

The first shipment of transuranic waste from Hanford arrived at the Waste Isolation Pilot Plant in New Mexico after about a 46-hour journey through seven states.

The elapsed time included required stops every 100 miles or two hours for the drivers to inspect the truck. The Department of Energy and the Western Governors' Association developed the safety protocols for the inspection stops.

The seven-barrel shipment was prepared by Fluor Hanford Waste Management employees. The shipment left Richland about 6 p.m. on July 12 and arrived at WIPP about 2:10 p.m. on July 14. WIPP has received 63 shipments of transuranic waste from four DOE sites since opening in March 1999. During the next 35 years, some 2,500 shipments of transuranic waste will repeat the 1,800-mile trip from Hanford.

WIPP is designed to permanently dispose of defense-generated transuranic waste left from the research and production of nuclear weapons. Transuranic waste consists of clothing, tools, rags, debris, residues and other items contaminated with radioactive elements, mostly plutonium. ✦

Hanford's first shipment of transuranic waste arrived at New Mexico's WIPP site, above, on July 14.

Hanford contractors ease burden for fire victims

The American Red Cross's efforts to aid victims of the recent Hanford fire were bolstered by an $80,000 combined donation from four Hanford contractors. The contribution, organized by the Department of Energy Richland Operations Office, came from contractors Battelle, Bechtel Hanford, CH2M HILL Hanford Group and the Fluor Corporation. The American Red Cross will use the money to assist the 11 families affected by the June 27-30 fire.

Some Hanford employees were among those driven from their homes by the fire. That fact makes the contribution all the more important, according to Marla Marvin, DOE-RL director of Intergovernmental, Public and Institutional Affairs. "When a situation like this happens to our area, especially when our own employees are affected, people at this site mobilize," Marvin said. "It's incredible how many people and organizations at Hanford have stepped up to help."

In addition to the donation, DOE has offered heavy equipment and personnel from Fluor Hanford and DynCorp Tri-Cities Services to assist in the cleanup effort. For more information on how you can help with the relief effort, contact the American Red Cross at 783-6193. ✦

Meeting the press are, from left, Peggy Williams of PNNL, John Umbarger of FH, Tom Logan of BHI and, accepting the check on behalf of the American Red Cross, Buddy Davis. Present for CH2M HILL Hanford Group, but not pictured, was Ace Etheridge.

Re-badging deadline set

After September 28, people with the Hanford "green" standard badges will be denied site access until they have received new badges.

The new DOE standard badges use colors to indicate clearance level: blue for a "Q" clearance, yellow for an "L" clearance, and gray for no clearance. In addition, the clearance levels "L" or "Q" appear on the new badge, replacing the "2" and "3" respectively. The "1" previously used to identify no clearance has been eliminated.

A "C" in the lower right box on the badge now denotes the bearer is a contractor employee (non-federal employee); this "C" replaces the "1" that was previously used. The picture size and name block areas have also been slightly modified.

If you haven't already done so, you should make plans to turn in your old badge for a new one. Re-badging is conducted at the following locations:

Badging Locations:

- Central Badging
  3790 Building, 300 Area
- Department of Energy Visitor Control
  825 Jadwin (Federal Building)
- Pacific Northwest National Laboratory Badging
  ETB, 3000 Area.

Points of Contact:

For additional information, contact one of the following personnel:

Environmental Restoration Contractor Badging	Penney Sommers	372-9577
Hanford Environmental Health Foundation Security Program	Jan McKee	372-2086
Fluor Hanford Team Central Badging Operations	Larry Wonch	376-3912
PNNL Badging	Ann Czebotar	376-0215
DOE Visitor Control	Bonnie Harris	376-3215.

Site fire precautions have long history

Michele Gerber, FH

Many steps have been taken at the Hanford Site in recent years to minimize fire danger, but precautions have always been a way of life at the 57-year-old desert reservation. The concrete and steel construction of many of the permanent buildings, vegetation control, fire watches, inspections and a trained and prepared fire department are among the reasons that fire has been successfully kept away from nuclear structures for nearly six decades.

Crews burn out a fire break along a railroad track at early 1950s Hanford.

A wartime priority

A fire officer was appointed to create a fire division at the World War II Hanford Engineer Works as early as June 24, 1943, just three months after the federal government acquired the property for the site. Awareness of fire danger at Hanford was immediate: “One of the greatest concerns,” states a 1945 report, “was the thousands of acres covered with cheat grass, bunch grass, and sagebrush surrounding the plant and Hanford Camp [where construction workers lived]. A potential fire hazard existed at all times...Railroad locomotives started many fires along the right-of-ways.”

By August 1943, crews were at work constructing fire lines or breaks along roads, railroads and telephone and power lines. In 12 months, they dug 1,260 miles of such lines. However, they reported that it was still “not unusual to receive three or more alarms within minutes of each other.”

The danger, reported the DuPont Corporation, Hanford prime contractor, was magnified by the fact that “the project location is such that...[we are not] able to rely on outside professional fire departments for assistance in the event of serious conflagration.”

In June 1944, a concerted effort to lessen the number of grass fires was begun by the Fire Inspection Division. Success was proved by the fact that from 73 fires in May 1944, the number dropped to seven in August. That summer, site personnel constructed a lookout tower on the summit of Gable Mountain, and DuPont’s official history of the construction period deemed it “a valuable asset in the detection of fires.”

Wooden structures

In addition to the hazards of a naturally dry, open environment disturbed by more than 50,000 new people, site construction itself presented fire dangers. The Manhattan Engineer District of the U.S. Army, along with DuPont, built more than 1,500 permanent structures at Hanford as well as about 5,000 “TC,” or temporary construction, facilities.

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While the massive 200 Area canyons, the 100 Area reactors and some key 300 Area buildings were concrete, each of these principal areas contained clusters of wooden buildings — some permanent and some temporary.

The patrol and first aid stations in all areas were wooden, as were many engineering and construction offices and shops, a huge shops complex on the site of the old town of White Bluffs and the "Central Shops" complex between 200 East and 200 West Areas.

Other wooden structures included the Leazer Spur warehouse complex halfway between the pre-site towns of Hanford and White Bluffs, the gondola repair shops between the 100B and 100D Areas, and the buildings of the Riverland Rail Yard just west of the 100B Area.

Additionally, nearly all of the Hanford Camp consisted of wooden structures, including barracks, huts, mess halls, stores, theaters and commissary buildings. There was more wood in the furniture, utility poles, fences, overhead pipe supports and many other structures.

Preventive practices

The years have changed both the look of Hanford and many practices at the site. Major decontamination and decommissioning campaigns in the 1970s demolished most of the buildings in the 100 Area, including the White Bluffs Shops, the Central Shops, buildings in the Leazer Spur and gondola repair areas, and the Riverland Yard structures. While small clusters of aging wooden buildings still exist in other areas, newer fences, furniture and other facilities are made of non-combustible substances.

Today, about 60 percent of buildings on the Hanford Site consist of non-combustible materials, and most of the combustible buildings are mobile offices in the 200 Area. Hanford Fire Department inspections of both structures and their fire alarms and extinguishers are performed on a regular basis. Large gravel and concrete aprons also surround most Hanford buildings, fences and roads as fire barriers, with green lawns and shrubbery a rare sight. HFD has also forged mutual aid agreements with multiple regional fire departments.

Vegetation management has become a huge weapon in fire prevention and control as well as in preventing the spread of radioactive contamination. From small beginnings along roads and railroads, vegetation control programs have grown into a multifaceted 15,000-acre-a-year project managed by Fluor Hanford and Bechtel Hanford.

Now, deep-rooted vegetation such as rabbit brush, sagebrush and tumbleweeds are mechanically or chemically treated on more than 800 waste sites. In some cases, the soil is sterilized to completely eliminate vegetation, but in other cases the shallow-rooted grasses are allowed to grow harmlessly over deep-soil contamination.

Continued on page7.

Site fire precautions have long history, cont.

Fluor Hanford Biological Control Manager Ray Johnson supervises the Integrated Soil, Vegetation and Animal Control program begun in 1998. “We saw a need for one program that would integrate the 90 separate contracts then in existence between individual facilities and the Waste Management Technical Services people who do the vegetation spraying,” Johnson said.

The integrated program is administered by DynCorp Tri-Cities Services and operates in conjunction with BHI’s Radiation Area Remedial Action program that has earned much praise in recent years. ✦

Range fire destroyed employee homes

Several employees suffered losses during the June 27-30 range fire at Hanford. Those who lost Benton City homes included:

- **Dan Autery**, chief test director for operations readiness with CH2M HILL Hanford Group
- **Kelvin Church**, janitor for custodial services with DynCorp Tri-Cities Services
- **Bonnie Devine**, tool crib attendant for the saltwell pumping program with CH2M HILL Hanford Group
- **Bud Evans**, health physicist for radiological control with DynCorp Tri-Cities Services
- **Terry Henry**, building administrator for 2704-HV with CH2M HILL Hanford Group
- **Bob Pierce**, designer, Fluor Federal Services
- **John Zachara**, scientist for the Environmental and Molecular Sciences Laboratory with Pacific Northwest National Laboratory.

Benton County Sheriff’s Office work crews load metal waste onto a frontloader operated by DynCorp Tri-Cities Services employees at the Walter and Pat Leonard residence.

An account has been opened at the U.S. Bank branch in Benton City to help people who lost homes or property in the fire. Donations are being handled through the Benton-Franklin chapter of the American Red Cross.

Checks should be made out to “Hanford Fire Relief Fund” and mailed to U.S. Bank, Hanford Fire Relief Fund, P.O. Box 368, Benton City, WA 99320.

Another account has been established at the Bank of America to help Bob Pierce with medical and housing needs. Pierce continues to recover at Harborview Medical Center in Seattle.

Checks made out to “Account for Bob Pierce” can be delivered to any Bank of America branch or can be mailed to Bank of America, Account for Bob Pierce, 1007 Knight Street, Richland, WA 99352. ✦

Teacher finds real-life math problems at Hanford Site

Kelly Kifer has taught mathematics to ninth through 12th graders at Kiona- Benton High School for the past six years. This summer she spent four weeks at the Hanford Site looking for real-world math applications for problems in the working environment.

Kifer was looking for ideas she could develop into lesson plans for her math students. For two weeks, she shadowed Jeff Hayenga, who is project lead for central mapping services for DynCorp Tri-Cities Services. Then Kifer spent two weeks following Rob Yasek, who is tank farms vadose zone project manager for the Department of Energy Office of River Protection.

Kifer, who received a degree in geology and studied secondary math education at Eastern Washington University in Cheney, was working under an internship through the Mid-Columbia Educational Alliance in partnership with the Tri-Cities Area Educational Cooperative.

"They have an application process where you tell them what you want to do and what you want to get out of the experience," said Kifer. Area educators, mostly in the middle and high school levels, are placed in local businesses and paired with mentors there.

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Jeff Hayenga, left, and Rob Yasek provided Kelly Kifer with ideas that Kifer can turn into lesson plans for her math students at Kiona-Benton High School.

New state tests call on students to interpret real data by using problem-solving skills. Kifer found just the sort of things at Hanford that test questions are being modeled after. This was what she said she was looking for when she applied for the internship.

She wanted something in the real world that applies to math, ways her students could better develop their problem-solving skills. Working with Hayenga, she looked at various applications of the Geographic Information Systems and database applications. From this experience, Kifer will develop computer-aided drawings of the high school buildings that will indicate who is responsible for what areas of the school.

She spent time working with Yasek on a project examining historical gamma data for the tank farms. The resulting exercise uses historical gross gamma logging from the SX tank farm. Her students will make scatter plots from the data set and then analyze their findings during a problem-solving exercise that deals with containment around Hanford's waste tanks.

Yasek commented that this is a good way to demonstrate to the students how mathematics is being used in the real world. The intern experience also provides teachers like Kifer with a better understanding of what's being done at the Hanford Site. ✦

Supplier Advocacy Office updates Web site, lobby display

This fiscal year, the Supplier Advocacy Office Web site and lobby display have a new look as part of the SAO's greater focus on doing business with local area small businesses, as well as providing guidance and information.

This Web site, located at **http://www.hanford.gov/pmm/supplieradvocacy.htm,** is being updated, and contains information on small business development workshops and seminars — a great resource for small businesses and entrepreneurs. In addition to the information on workshops and seminars, hot-links are provided to other Web sites that offer information and assistance to small businesses.

The Supplier Advocacy Web site has a new look.

The SAO's lobby display has also gotten a "face lift." Lockheed Martin Services Inc. staff members worked closely with the SAO to produce an eye-catching display. If you haven't seen it, stop by the lobby at 2430 Stevens and take a look. This display will be traveling, and will be set up at the Federal Building in the very near future.

The SAO is here to not only assist small businesses looking to do business with Fluor Hanford, but is available to assist internal customers as well. If you have any questions, or need assistance, please contact Catherine Pearsall at 376-4697 or e-mail m_c_catherine_pearsall@rl.gov. ❖

Report on Hanford groundwater project available

The Department of Energy's Richland Operations Office and Bechtel Hanford, Inc. have released the semiannual report to Congress on Hanford's Groundwater/Vadose Zone Integration Project.

The report, covering October 1999 through March 2000, provides an overview of the Integration Project's progress to protect the Columbia River from contaminants in Hanford's groundwater and vadose zone (the area between ground level and the groundwater).

The Groundwater/Vadose Zone Integration Project was launched in late 1997 to create a site-wide focus on contaminants, both radioactive and chemical, slowly migrating toward the Columbia River. The project has focused the attention of a wide variety of outside experts and stakeholders with a large range of expertise, opinions and concerns on the issue. Independent review of the project comes from a committee of the National Academy of Sciences and a panel of nationally recognized experts from academia and private industry.

Because of the importance of the work, Congress requested a semi-annual report to help its members stay abreast of the project. And, although directed to Congress, the report also provides an update for DOE decision-makers, stakeholders, regulators, tribal nations and the State of Oregon.

The report can be found on BHI's Internet site at **www.bhi-erc.com/vadose/info.htm**. Copies of the report may also be obtained by contacting Karen Strickland of BHI at 372-9236. ❖

Battelle gives gift to Boys and Girls Club for LEGO learning

Battelle has introduced a new opportunity for youth to learn math and engineering skills through an innovative program at the Boys and Girls Club of Benton and Franklin Counties. It's called the Battelle Academy of Engineering.

PNNL Director Lura Powell receives a lesson in LEGO learning from Leah Glesener at the Boys and Girls Club in Pasco.

The Battelle Academy of Engineering is a fun, hands-on program that uses LEGOs to teach children basic engineering principles. Battelle operates the Department of Energy's Pacific Northwest National Laboratory and sponsored the academy with a $17,000 grant to the local Boys and Girls Club.

The Academy of Engineering reaches many of the club's 1,500 members in the Tri-Cities, especially young girls and Hispanic children, who often are under represented in math and engineering.

"Battelle is pleased to support this exceptional educational opportunity for Tri-Cities youth," said Lura Powell, Battelle senior vice president and PNNL director. "We believe the academy will serve as a source of knowledge and inspiration for local children to aspire to be America's future scientists and engineers. The academy will provide enriching, worthwhile learning experiences."

"It's an honor to work with a dedicated company like Battelle," said Kellee Magnuson, executive director of the Boys and Girls Club of Benton and Franklin Counties. "Not only is Battelle's leadership willing to enable an educational program of this caliber, but its leaders also rolled up their sleeves to help remodel the room and volunteer as mentors for the academy. They truly are setting the pace for corporate partners in our area."

The Academy of Engineering is based on a 50,000-piece LEGO kit and curriculum created by a company called PCS Education Systems, Inc. The curriculum's eight topics each teach different engineering principles. The mechanical engineering series, for example, guides youth through lessons on power transfer and steering systems. Other curriculum topics include electricity, chess and the physics of mechanics.

The club also hired a part-time coordinator to organize and teach the curriculum using a grant provided by the Department of Energy Richland Operations Office.

The Academy of Engineering will be located at the club's main branch in Pasco. The local Boys and Girls Club is part of a national affiliation of more than 2,800 clubs across the country that provide after-school, weekend and summer enrichment activities for kids ages six to 18.

Battelle gives more than half of its philanthropic corporate contributions in the Mid-Columbia to education organizations and activities. ❖

The last N Reactor support facility is shut down

Todd Nelson, BHI

Don Perry, HAMTC stationary engineer, closed the inlet valve supplying Columbia River water to the 183-N Water Treatment Plant for the last time on May 30. The action completed the permanent shutdown of the plant.

After 38 years of continuous operation, the last operating facility at N Reactor — the 183-N Water Treatment Plant — has been shut down. The plant began operation in 1962 to provide water for reactor construction, operation and other support activities.

Drawing from the Columbia River, the plant was capable of treating 15,000 gallons per minute of water and had a storage capacity of 850,000 gallons. When N Reactor was shut down in 1988, curtailed operations and a decrease in employment reduced requirements for potable water. Production eventually dropped to 30 gallons per minute, which proved to be too costly and inefficient for continued operation.

A much smaller and more efficient replacement was installed in an adjacent facility and came on line when the old plant was shut down for the last time on May 30. The new unit was designed to meet current and projected needs, minimize environmental impacts and supply drinking water for the remaining N Area workforce of about 150 people.

The new unit is a packaged water treatment plant with an average flow rate of 25 gallons per minute and peak flow rate of 50 gpm. Bechtel Hanford, Inc.'s Design Engineering Group developed the performance specifications for the new plant, which was installed by Thompson Mechanical.

One of the key elements in the design of the new plant was a "zero waste-water discharge," eliminating the effluent discharge to the ground permitted by the Washington State Department of Ecology. Elimination of the effluent demonstrates a continued effort by DOE and its contractors to minimize discharges to the ground, which is consistent with the Tri-Party Agreement and State of Washington Consent Order.

Members of the Hanford Atomic Metal Trades Council stationary engineers were responsible for operating the old plant. They worked closely with BHI engineers to ensure subcontractor design recommendations were compatible with current and future needs. HAMTC stationary engineers operate the new facility as well. ✦

UP ON FLAT TOP: Calvin Dudney, left, and John Umbarger of the Fluor Community Involvement Team installed fascia on the Flat Top Park Pavilion in West Richland. The Atomic City Kiwanis, City of West Richland and the West Richland Chamber of Commerce are building the pavilion in the park on Van Giesen with the support of volunteers and donations from corporations such as Fluor Hanford.

Learn about safety equipment for your boat

Lt. Charles Kissler
Benton County Sheriff's Office

The summer months are here and with them are many opportunities for boating and other recreational activities in and around the water. Safe boating begins with having the required safety equipment, and making sure that equipment is in good working order.

Here is a list of some items that will help you stay safe while boating.

• **Personal flotation devices (or PFDs, a life jacket)** - Always have a U.S. Coast Guard-approved and appropriately sized PFD for everyone on the boat — and make sure they wear them. All water skiers and all personal water craft operators and passengers are required to wear life jackets. In April 1999, the Washington state legislature passed a law requiring children 12 and under to wear life jackets in boats under 19 feet in length while the boat is underway.

• **Fire Extinguisher** – Make sure you have the proper type and size for fires that may occur on board.

• **Anchor with line** – You should have plenty of line attached to your anchor. Under average conditions, you should have 7 or 8 feet of line for each foot from the bow of the boat to the bottom of the body of water.

• **Paddle or oar**- This is a good piece of equipment to help get to safety if your engine fails.

• **Sound-producing device** – Depending on the size of your boat, you are required to have these devices to use when you are in or near conditions of restricted visibility.

• **Navigation lights** – Make sure these work when you are out after dark.

• **Backfire flame arrestors on engines** – This device is required on inboard gasoline engines to control backfire flames.

• **Proper ventilation on inboard engines** – Ventilation for the engine and fuel tank compartment reduces the risk of fire.

• **Proper vessel numbering** – The numbers help identify your boat.

Find out what safety equipment is required for your boat. In the case of boating breakdowns, the old adage of "an ounce of prevention..." can mean the difference between a pleasant day on the water or an unpleasant or even dangerous consequence.

And remember: wear your life jacket!

If you have any questions about boating safety, contact the Benton County Sheriff's Office at 376-1022. ✦

VPP issues a challenge to CH2M HILL employees

Vanessa Hamilton, CHG

The Voluntary Protection Program is putting employees of CH2M HILL Hanford Group and its subcontractors to the test. Workers will take the VPP Awareness Challenge 2000, a game designed to increase employee knowledge and awareness of safety requirements, procedures and practices.

"We're using every opportunity we can at Hanford to hone in on safety issues," said Patty Bailey, CH2M HILL's VPP coordinator. "This is one of the more fun activities to keep our safety philosophy at the front of people's minds."

For the next two-and-a-half months, employees can compete in Challenge 2000 by answering various safety questions and completing activities from a book being distributed to employees at tailgate and safety meetings.

The goal of Challenge 2000 is to improve overall personnel safety. Employees who participate also stand to gain some other benefits, including a recognition breakfast and two levels of awards. Level 1 awards include golf balls, a $40 gift certificate for Home Depot and a soft-sided briefcase. Level 2 awards include a portable chair, a $50 gift certificate for the Sundance Grill and a portable barbecue.

CH2M HILL Hanford Group President and General Manager Fran DeLozier thinks the concept will help enhance some of the company's safety objectives. "Challenge 2000 is a pretty creative way for us to promote a continuously improving safety culture at work," DeLozier said. "And, at the same time, it will help improve employee understanding of VPP and ISMS."

ISMS is the Integrated Environment, Safety and Health Management System. This is the group's third annual safety awareness campaign. Challenge 2000 will run through Sept. 30.

In addition to tailgate and safety meetings, game booklets and a list of corrections to earlier misprints are available from safety council representatives or any of these members of the VPP Awareness Challenge 2000 team: Kim Cutforth, Marcia Davis, Ted Davis, Greg Gauck, Al Meldrom, Bree Nielsen, Jon Renholds, Kathy Laframboise and Bob Parks.

The correction sheet will also be printed in the July edition of the CH2M HILL Hanford Group newsletter. ✦

Consult the Web for Hanford Site excavation information

Need some down-to-earth information on Hanford Site excavation procedures? The Hanford Site Excavation Safety Program and the Fluor Federal Services Web development team recently completed a Web site to provide information and assistance to those preparing and approving excavation permits.

The site, located at **www.rl.gov/services/excavation/index.html**, includes items necessary to complete the excavation permitting process including references to applicable procedures, instructions for filling out the permit form, and a list of approvers by approval item, project and area. Other links include information on additional forms that may be required for excavation work, scanning services available on site and lessons learned relating to excavation.

A new Web site provides information for those preparing and approving excavation permits.

Individuals preparing permits are still required to contact the Hanford Site Excavation Coordinator to log in their permit and obtain a permit number. Contact Jennifer Williamson at 372-2968 to log in a permit.

The Hanford Site Excavation Safety Program works to ensure that excavations performed on the Hanford Site are safe, both for workers and for underground infrastructure. The Web site brings the goal of zero excavation occurrences closer by making relevant information readily available to the people preparing and approving excavation permits.

The Web site will be updated as changes in procedures, approval authorities and construction activities on the Hanford Site warrant. For more information on the Web site, contact Jennifer Williamson. ✦

ETF finding it's great to have satisfied customers

Connie Eckard, FH

It was a pretty straightforward shipment for the Effluent Treatment Facility, but it was something pretty special for the customer.

Last January, Reg Dahl needed to dispose of four drums from the Fast Flux Test Facility that had tritium-contaminated water in them. The drums also were designated as mixed waste because there were traces of lead.

In spite of these complexities, Dahl says it was the only time since 1974 that he's been treated like the customer of a business.

"The people at the Effluent Treatment Facility stayed in contact with

Continued on page 15.

us, even after they picked up the barrels," said Dahl, who is the acting environmental compliance officer and was part of the first operating crew at FFTF in the mid-1970s.

"They wanted to get the job done right and they made it easy for us. They want our water and they are not charging us for it," said Dahl, adding, "We're not generating any water right now, but whenever we can, we'll use them."

The 200 Area Effluent Treatment Facility receives and treats industrial wastewater.

Customer service

The Effluent Treatment Facility, operated by Fluor Hanford in 200 East, provides different services for different waste generators.

In the opinion of Rene Rodriguez, who represents 200 Area Liquid Waste Processing facilities of the Waste Management Project, "We're really serious about our customer service. We want to end up being good friends with the people we serve."

According to Patti Huff, it's great to have a facility like ETF available.

Huff is waste designator and shipper in the hazardous materials group at the Waste Sampling and Characterization Facility and has worked directly with Rodriguez and Kristi Lueck at the Effluent Treatment Facility for the past year and a half. The ETF handles Huff's largest waste stream, saving WSCF both money and time.

"By using the ETF, our waste is not going to the Central Waste Complex for storage and the waste doesn't have to be solidified before it can be treated," said Huff. "Storage costs so much while the waste is waiting for treatment technology to be developed."

Huff had sent the Effluent Treatment Facility three loads using her own thousand-gallon tanker, but now she is waiting for the notice of compliance to be revised on the tanker. So, recently, people at ETF have handled between 45 and 50 55-gallon drums, moving them from Huff's 90-day storage area.

"Working with drums is very labor-intensive," said Rodriguez, "because there's no way of taking a drum and transferring its contents directly into a facility. But sometimes it's important for us to be flexible in order to help a customer."

At least once a month, Effluent Treatment Facility people take Huff's aqueous wastewater, which includes inorganic liquids and metals such as chromium, lead and mercury. This wastewater also contains small quantities of radioactive material.

"It's really a big help," said Huff. "The ETF people are very accommodating, they do a great job and they are pleasant to deal with."

Dahl

Continued on page 16.

Energy Northest

The Hanford Generating Plant is an incomparable facility that presented the ETF with a unique situation. The HGP sits on land that Energy Northwest leases from the Department of Energy, but any radioactive material belongs to the Department of Energy.

Because of an article Loren Oakes had read in the Jan. 17 *Hanford Reach* about Effluent Treatment Facility capabilities, he turned to the ETF for a solution.

Oakes is project manager for the Hanford Generating Plant and his problem was 20,000 gallons of fluid in the drain collection sumps in the basement of the HGP facility. In addition, the fluid was potentially contaminated.

"We are not an 'in-the-fence' facility," said Oakes, "but we can partake of some of the good things." He and his people were pleasantly surprised that the Effluent Treatment Facility was available for them.

The Energy Northwest personnel were unfamiliar with the necessary processes for getting waste to the Effluent Treatment Facility, so Rodriguez and others worked to explain and help implement the requirements. Drivers and the liquid tanker as well as shippers to coordinate paperwork were provided from the Effluent Treatment Facility, while Energy Northwest provided radiological and operational teams for transferring the fluid.

The sump water was characterized and sampled at ETF, then sent to Energy Northwest's own laboratory without charging. The collecting, handling and analysis were completed in two weeks with no accidents, no spills and no further contamination.

"We did these things for Energy Northwest because the real customer was DOE, which owns the land under the HGP," said Rodriguez. "DOE agreed to ETF handling the liquid effluent and we worked very hard with Energy Northwest for the collection, handling and analysis of the sump water. We spared no initiative to get the effluent to our facility."

"All I saw was the results and, all in all, things went very well," said Oakes.

Some generators of waste require a little bit of service and some require a lot. For Rodriguez, the results for Energy Northwest reflect the way all Effluent Treatment Facility customers should be treated — with service that satisfies them. "See," he smiled, "we mean it."✦

Huff

Oakes

Regular Features

LETTERS

Employees are invited to write letters of general interest on work-related topics. Anonymous letters will not be printed. We reserve the right to edit letters or not to accept letters for publication. Send your letters to the *Reach*, B3-30, or to *Hanford Reach on e-mail. Letters are limited to 300 words, and must include your name, company, work group and location. Opinions expressed are those of the author and not of DOE-RL, ORP or their contractors.

Shady shading?

In observing the pictures of the blackened areas which compared the 1984 fire and the 2000 fire ("2000 fire most intense, not biggest," *Hanford Reach*, July 17), I was wondering if acres are larger in size today than they were in 1984. According to what I have read in the papers, the fire of 1984 was supposed to have been about a third larger, yet the pictures do not reflect this.

John Faulkner
Fluor Hanford

Editors' note: The 1984 fire was larger, but not by a third – 200,000 acres burned in 1984 versus an estimated 192,000 acres in 2000. The maps show only the burned areas on the Hanford Site, so the 1984 map does not show the acreage that burned near Sunnyside, where the fire started. The multi-agency Burnt Area Emergency Rehabilitation team has since revised the 192,000-acre figure to 163,884 acres, including the ALE reserve, lands under DOE, state and BLM control, and private property.

Good reporting

Once again Michele Gerber has done an excellent job in characterizing events of the past and present. Her article was well written and significantly contrasts and compares the 1984 and 2000 range fires.

I commend Gerber in her ability to extract the information from the 1984 reports and succinctly compare and communicate conditions that led to both fires.

This article will also be a help to me in communicating to the DOE-RL Accident Investigation Team some of the lessons learned from this fire.

Craig Christenson
DOE-RL Accident Investigation Teem Member

CLASSES

Washington State University Tri-Cities Continuing Education Department offers:

- **National Electrical Code** — July 24-26. This intensive course is designed to help you understand important code requirements and to gain the practical knowledge you need on the job. Cost: $1,025.
- **National Electrical Code: One Day Update** — July 27. Learn about the most important changes to the code. Note: This refresher is for people already proficient in the NEC. Cost: $349.
- **Grant Writing Workshop** — July 25–26. This two-day workshop walks you through the practical steps to take toward grant writing and how to approach the right funders for the dollars you need. Cost: $395.

For more information, call 372-7200 or visit the Web site at **www.ProEd.wsu.edu.**

Washington State University Tri-Cities' University Center for Professional Education offers:

- **REASON: Point of Occurrence Root Cause Analysis Training** – Sept. 25-26. This structured, two-day training course is designed to provide operations personnel with REASON causal factor analysis methods and skills. The training equips attendees with the advanced skills to produce objective, concise, accurate and consistent results required in critical event analysis. It has been designed for professionals with responsibilities for developing and maintaining control of operations reliability such as operations managers, maintenance and engineering managers, occurrence investigators, process analysts, operations supervisors, industrial engineers and total quality professionals.

Contact WSU Tri-Cities' University Center for Professional Education office at 372-7200 for more information and tuition costs.

Protrain offers August specials in computer training:

Outlook 2000

- **Beginning** — Aug. 16. Learn to work with Outlook Office Assistant, messaging, message management,

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scheduling with the calendar, and using, journal, notes and other features. Cost: $99.

- **Intermediate** — Aug. 21. Learn to use the new advanced calendar functions and contact features, manage tasks, customize inboxes, use the new Outlook features with the Internet and use the new advanced inbox features. Cost: $99

  August Special! Register in both Outlook 2000 classes for $189.

Access 97

- **Beginning** — Aug. 2. Work with Access objects and create tables. Design databases, table fields and field properties. Create and work with selected queries. Create and enhance forms and reports. Cost: $89.
- **Intermediate** — Aug. 3. Review basic database concepts and learn intermediate database skills; create charts, apply filters, define and apply relationships, input masks, required properties, validation rules and lookup fields. Learn to use expressions, accuracy and forms. Create and perform macros, use advanced report features and master advanced query features. Cost: $89.

  August Special! Register in both Access 97 classes for $175.

Crystal Reports

- **Introduction** — Aug. 21. Learn how to create reports, formulas and export. Cost: $215.
- **Advanced** — Aug. 28. Compose enhanced reports and learn the full use of the Crystal Reports program. Learn advanced formulas, conditional formatting, SQL/ODBC query designer, graphing, Web reporting and advanced cross-tabs. Cost: $215.

  August Special! Enroll in both classes for $398.

SQL Systems Administration Training — Learn SQL server architecture,components, installing and configuring, managing security, managing data files and transferring data.

August Special! For more information call Protrain.

Primavera 602, 603, 604 – Aug. 8, 9 and 10. Learn planning and cost analysis,managing Project 98, and creating reports and graphics. Prerequisite: Primavera 601. Cost: $395 each, or register for all three classes for only $995 and save $200 off original combined unit price.

Protrain offers two levels of certification: Proficient/Core and Expert in the Microsoft Office User Specialist (MOUS) Program.

For more information call 946-1123 today. ✦

NEWSBRIEFS

Volunteer advocates needed

If you have been looking for the opportunity to make a difference in someone's life or to give back to your community, here is your chance. The Sexual Assault Response Center needs volunteers to help run its 24-hour hotline.

The Sexual Assault Response Center is a non-profit, United Way agency serving Benton and Franklin counties. Its main function is to provide crisis services and preventive education for community members on issues regarding sexual assault and abuse.

The summer volunteer advocate training for the Sexual Assault Response Center runs Aug. 8 through Aug. 22. This 30-hour training is designed to give volunteers the tools they need to work with sexual assault victims and their families.

People interested in learning more about the dynamics of sexual assault are urged to attend. You can volunteer from your home, if you have access to a phone in the evening, twice a month for 12-hour shifts.

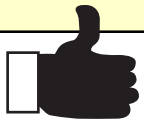
Training Schedule:

Aug. 8 — 5:30-10 p.m.,
Aug. 10 — 5:30-10 p.m.
Aug. 18 — 8:30 a.m.-5:30 p.m.
Aug. 19 — 8:30 a.m.-5:30 p.m.
Aug. 22 — 5 p.m.-10 p.m.

There is a $10 fee to help pay for the training manual. The schedule for the training is listed above. All sessions are held at 830 N. Columbia Center Blvd., Suite H, in Kennewick. For more information, please call Rosa Valdez at 946-2377 or 374-5391. ✦

Regular Features

B R A V O



Two BHI employees recognized as certified internal auditors

Dave Buschbach and **Bill Craven** of Bechtel Hanford, Inc. have been recognized as Certified Internal Auditors by the Institute of Internal Auditors. This designation is given to internal audit professionals who have met rigorous requirements, including passing a four-part examination that was given in May.

The Institute of Internal Auditors also recognized Buschbach with its William S. Smith Certificate of Honor for his outstanding performance on the auditor examination. He placed in the top 30 of the more than 7,000 individuals from 58 countries taking the May examination.

Craven has been with BHI for two years and is the manager of internal audit for the Environmental Restoration Contractor team. Buschbach is a senior auditor for the ERC team and has been with BHI for more than three years.

C A L E N D A R

Red Cross Blood Drive scheduled July 24

The Red Cross will conduct a blood drive July 24, 9:30 a.m.-3 p.m. in the Federal Building Lobby and Room 142 at 825 Jadwin in Richland. With the summer months comes an increase in the demand for blood and blood products. If you can give about an hour of your time and a pint of your blood, someone somewhere will be grateful. Walk-ins are welcome, but it's not too late to make an appointment by calling (800) 787-9691.

V A N P O O L S

BENTON CITY

Riders wanted for vanpool to 200W (will go east as far as WSCF). Contact **Charlotte Burruss** at 373-4046. 7/17

KENNEWICK

8x9 vanpool to 200E needs additional riders. Leaves Fred Meyer (2811 W. 10th Ave., Kennewick) at 5:45 a.m. and Shari's (1200 N. Columbia Center Blvd., Kennewick) at 6 a.m. Stops at 2750-E, MO-251, MO-414, MO-294, 2727-E and 2025-EA. If you are willing to share the driving responsibilities for a lower fare, please say so when calling. Call **Ron Butler** at 376-0752 or **Rex Bendixsen** at 372-1052. 7/24

Great company! Huge benefits! Easy commute. We don't have a job for you, but we have a van. Come join us. Low rates. Richland Wye to 200W. 8x9 shift. Call **Fred** at 373-2106. 7/17

YAKIMA

Rider seeking 8x9 (6:30 a.m-4 p.m.) vanpool or car pool from Yakima to 400 Area. Contact **David Frey** at 372-2736. 7/24

Environmental Restoration Contractor Employees Association

ERC team picnic – Aug. 19, 11 a.m. to 3 p.m. in Columbia Park. Food, fun and entertainment.

Discount movie theater tickets — Regal $4, Carmike $4.50. Contact Donnell Long at 372-9500.